

2000

Summary of Indiana Solid Waste Facility Data

SOLID

WASTE



Indiana Department of Environmental Management
Office of Land Quality

100 N. Senate Ave.
P.O. Box 6015
Indianapolis, IN 46206-6015

The *2000 Summary of Indiana Solid Waste Facility Data* is the ninth in the series of annual reports of solid waste facility activities in Indiana. The information is compiled from solid waste facility quarterly reports submitted to the Indiana Department of Environmental Management (IDEM). The IDEM Office of Land Quality publishes the *2000 Summary of Indiana Solid Waste Facility Data* to provide information to the public about solid waste processing and disposal activities in Indiana. This report was prepared by staff of the Facilities Data Analysis Section.

Contributors: Michelle Weddle
Richard Worth
Heather French

Project Coordinator: Michelle Weddle

Cover Report Design: Oscar Meza

For additional information or to obtain additional copies of this report, please call the IDEM Office of Land Quality at (317) 233-4624.

An electronic version of this document is available at
<http://www.in.gov/idem/land/sw/index.html>

Table of Contents

	Page
INTRODUCTION	4
SOLID WASTE DATA FRAMEWORK	6
– Solid Waste Types	6
– Solid Waste Facilities	6
– Origin of Waste	10
SOLID WASTE LAND DISPOSAL FACILITIES	13
– Municipal Solid Waste Landfills	15
– Other Solid Waste Land Disposal Facilities	19
SOLID WASTE PROCESSING FACILITIES	23
– Solid Waste Incinerators	24
– Transfer Stations	25
– Other Processing Facilities	26
OUT-OF-STATE WASTE	27
2000 SOLID WASTE FACILITY PROFILES (Ordered alphabetically by county location of facility)	P1

List of Figures

	Page		Page
Figure 1: Solid Waste Categories in Facility Quarterly Reports Since 1996	6	Figure 11: Annual Disposal at Construction-Demolition Sites by Waste Origin	19
Figure 2: Municipal Solid Waste Landfill Ownership by Percent During 2000	10	Figure 12: Annual Disposal at Restricted Waste Sites by Waste Type	20
Figure 3: Waste Disposal Pathways	10	Figure 13: Transfer Station Waste Management	25
Figure 4: Disposal of Solid Waste by Landfill Type During 2000	13	Figure 14: Destination of Waste Sent from Transfer Stations During 2000	26
Figure 5: Disposal of Solid Waste by Waste Type During 2000	13	Figure 15: Annual Waste Imports by Region of Origin	27
Figure 6: Annual Disposal at All Solid Waste Land Disposal Facilities	14	Figure 16: Annual Waste Imports by State of Origin	29
Figure 7: Disposal of Solid Waste at Municipal Solid Waste Landfills by Waste Type During 2000	15	Figure 17: Annual Amount of Out-of-State Waste Received by Solid Waste Facilities	30
Figure 8: Annual Disposal at Municipal Solid Waste Landfills	16	Figure 18: Distribution of Disposal of Out-of-State Waste Disposed at Indiana Solid Waste Facilities During 2000	32
Figure 9: Annual Disposal at Municipal Solid Waste Landfills by Waste Origin	16	Figure 19: Origin of Waste Disposed and Incinerated in Indiana During 2000	35
Figure 10: Distribution of Disposal at Municipal Solid Waste Landfills During 2000	17		

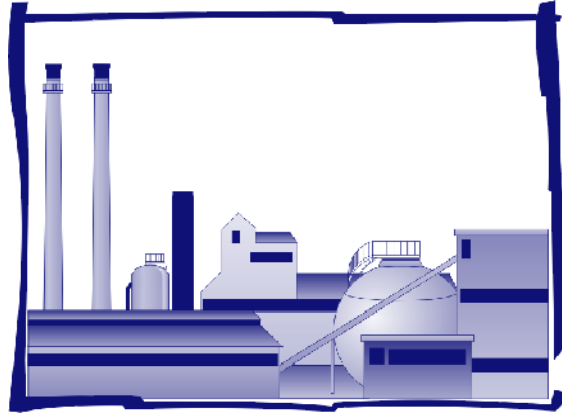
List of Tables

	Page		Page
Table 1: Sources of Solid Waste Data	5	Table 12: Total Disposal at Nonmunicipal Solid Waste Landfills During 2000	22
Table 2: Solid Waste Classification Guide During 2000	7	Table 13: Solid Waste Received by Processing Facilities by Waste Type During 2000	23
Table 3: Number of Permitted Solid Waste Facilities that Operated During 2000	8	Table 14: Annual Amount of Solid Waste Received by Processing Facility Type and Waste Type	23
Table 4: Types of Landfills and Incinerators	8	Table 15: Total Waste Received at Incinerators During 2000	24
Table 5: Waste Tons Disposed in Indiana, by Estimated County of Origin	11	Table 16: Destination of Waste Sent from Transfer Stations for Final Disposal	25
Table 6: Disposal of Solid Waste by Landfill Type and Waste Type During 2000	13	Table 17: Out-of-State Waste Received During 2000	28
Table 7: Annual Disposal at Solid Waste Land Disposal Facilities by Landfill Type and Waste Type (Includes waste imports to Indiana)	14	Table 18: Amount of Out-of-State Waste Received by Solid Waste Facilities by Facility Type and Waste Type During 2000	29
Table 8: Annual Disposal at Solid Waste Land Disposal Facilities by Landfill Type and Waste Type (Excludes direct imports to Indiana landfills)	15	Table 19: Annual Amount of Out-of-State Waste Received by Solid Waste Facilities by Facility Type and Waste Type	31
Table 9: Total Disposal at Municipal Solid Waste Landfills During 2000	18	Table 20: Total Out-of-State Waste Received by Facility During 2000	33
Table 10: Total Disposal at Construction-Demolition Sites During 2000	20	Table 21: Out-of-State Waste Received by Indiana Solid Waste Facilities During 2000	34
Table 11: Total Disposal at Restricted Waste Sites During 2000	21		

Introduction

This report is the ninth annual summary of Indiana's solid waste facility data. It is intended to provide information about Indiana's solid waste management. The report provides solid waste facility information for 2000 and contains:

- a summary of existing solid waste facilities;
- a summary of the amount, origin, and types of solid waste received at land disposal facilities and processing facilities; and
- a summary of out-of-state waste imports.



information in addition to other information that may interest readers of this report.

Previous reports summarized municipal solid waste (MSW) landfill capacity from amounts reported by facilities or from estimates made by IDEM. Beginning in 1996, landfills were required by regulation to submit contour maps annually based on surveys conducted between October 1 and December 31 of each year. IDEM uses this information to calculate accurate and precise totals for both airspace and waste capacity. See Table 1 for the IDEM contact for MSW landfill capacity data for 1997 through 2000.

This report was compiled from the solid waste facility quarterly reports submitted to IDEM by owners and operators of facilities that manage non-hazardous solid waste. Rules passed by the Solid Waste Management Board require all solid waste land disposal facilities (329 IAC 10-14-1) and processing facilities (329 IAC 11-14-1) to submit information to IDEM on a quarterly basis describing the origin, type, and amount of solid waste received by these facilities. Processing facilities must also report the amount and destination of wastes that are transported off-site for recovery or disposal. Reports submitted to IDEM are on file and available for public review.

This report emphasizes graphs, tables, and figures. Discussion text is included only as necessary to guide the reader through the report and to provide a context for the graphs and tables. Much of the information in this report has been duplicated from year to year and/or is available in other IDEM publications. Table 1 shows how to obtain this

In 1996, IDEM began utilizing revised report forms to provide more detailed nonmunicipal waste information. Changes included the addition of waste categories for foundry wastes, coal ash, and flue gas desulfurization by-products. Prior to 1996, this report summarized nonmunicipal waste only as construction-demolition waste and special/other waste. Because of this, certain nonmunicipal waste types reported since 1996 could not be compared with previous years since those types were not individually reported. Therefore, annual comparisons of disposal by waste type is grouped by municipal waste and nonmunicipal waste in this report. However, information concerning solid waste disposal since 1996 includes all reported waste types.

Table 1.
Sources of Solid Waste Data

Information Available	Description	Contact
Land disposal facility quarterly reports	Origin, type, and tonnage of solid waste received. *	Michelle Weddle (317) 233-4624
Processing facility quarterly reports	Origin, type, and tonnage of solid waste received and destination information. *	Michelle Weddle (317) 233-4624
Composting facility annual reports	Type and volume of compost received and processed. *	Michelle Weddle (317) 233-4624
Transfer station inspection annual reports	Results from inspections of incoming waste for special, infectious, and hazardous waste.	Marcia Earl (317) 308-3016
Waste tire storage facility annual reports	On-site summary of incoming and outgoing tires.	Steve Poe (317) 233-9341
Municipal waste transportation manifests	Waste generation, transportation, and disposal information that accompanies waste from processing facilities for final disposal.	Richard Worth (317) 233-5156
Indiana MSW landfill disposal capacity reports	Remaining air space and disposal space at Indiana land disposal facilities.	Richard Worth (317) 233-5156
Solid waste management fee reports (IDOR)	Monthly report showing fees collected for solid waste disposed at final disposal facilities.	Rachel Ballard (317) 615-2618
Solid waste disposal fee reports (IDEM)	Semi-annual report showing fees collected for the disposal of specific types of solid waste.	Pat Beeler (317) 233-0408
Solid waste management districts	Information on district programs and activities.	Bob Gedert (317) 233-5431
Indiana solid waste diversion goals	Indiana's progress toward meeting its 35%/50% solid waste diversion goals. *	Michelle Weddle (317) 233-4624
Permitted solid waste facilities list	List of permitted solid waste facilities in Indiana. *	Debby Baker (317) 232-0066

* Online search and/or data download available at:



www.state.in.us/idem/land/sw/index.html

Solid Waste Data Framework

Several factors must be considered when discussing solid waste disposal in Indiana:

- type and quantity of the waste disposed;
- type and ownership of the facility that received the waste; and
- origin of the waste received.

The following pages give an overview of key concepts necessary for understanding solid waste disposal data.

Solid Waste Types

Solid waste can be categorized broadly as either hazardous waste or non-hazardous waste. This report deals only with **non-hazardous waste**, which can be further broken down into municipal solid waste and all other non-hazardous solid waste. **Municipal solid waste**, or MSW, is any solid waste generated by community activities or the operation of residential or commercial establishments (329 IAC 10-2-115). Non-hazardous waste that is not MSW has been historically subdivided into categories such as **construction-demolition debris**, **special waste**, and other “**nonmunicipal**” waste types. In 1996, several categories of solid waste were added to the Facility Quarterly Report forms to provide more detailed waste information. Figure 1

Figure 1.
Solid Waste Categories in Facility Quarterly Reports Since 1996



shows the solid waste categories used since 1996. A more detailed explanation of these types is provided in Table 2. In July 2000, a statute went into effect which changed the special waste category to industrial waste. For the purpose of consistency, this year's annual report maintained the special waste category.

Solid Waste Facilities

Solid waste facilities in Indiana fall into two broad permit categories: land disposal facilities and processing facilities. **Land disposal facilities** are subdivided further into four types: municipal solid waste (MSW) landfills, construction-demolition sites, restricted waste landfills (types 1 through 4), and nonmunicipal solid waste landfills. **Solid waste processing facilities** permitted by IDEM can be incinerators, transfer stations, solid waste balers, solid waste shredders, resource recovery systems, or garbage grinding facilities (329 IAC 11-2-43). Table 3 summarizes the number of permitted solid waste facilities that submitted data reports to IDEM during 2000. Table 4 describes the types of waste each facility type may receive.

Land Disposal Facilities

Municipal solid waste landfills (MSWLFs) can accept a wide range of solid wastes disposed from residential, commercial, institutional, and industrial sources, except hazardous waste regulated under 329 IAC 3.1. Special waste can be accepted at MSWLFs only in accordance with 329 IAC 10-8.1. Of the four landfill types, only MSWLFs can accept municipal solid wastes (Table 4).

Construction-demolition sites accept only construction or demolition waste materials (329 IAC 10-9-3).

Table 2.
Solid Waste Classification Guide During 2000

TYPE	GENERAL CATEGORIES	EXAMPLES
Municipal Solid Waste (MSW)	<ul style="list-style-type: none"> - Residential - Single- and multi-family units - Other (campgrounds, parks, etc.) - Commercial - Retail and wholesale - Service industry - Institutional - Prisons, hospitals, schools, and universities - Government sector - Industrial non-process / municipal - Offices, lunchrooms, restrooms - Shipping / receiving activities 	<ul style="list-style-type: none"> - Consumer goods - Packaging wastes - Food wastes - Office wastes - Yard trimmings / vegetation - White goods (appliances) - Automobile parts - Waste tires - Small animal carcasses - Medical wastes - Household hazardous wastes (includes oil, batteries, etc.) - Used pallets - Treated Infectious wastes - Cardboard - Furniture - Exempt special wastes (generated by a single generator in quantities less than 100 kilograms per month and disposed of in quantities less than 100 kilograms per shipment) - CESQG wastes
C/D	<ul style="list-style-type: none"> - Construction / Demolition - Construction industry - Demolition companies 	<ul style="list-style-type: none"> - Uncontaminated solid waste resulting from the construction, remodeling, repair or demolition of structures. For example: - Scrap lumber, wallboard - Roofing materials - Plumbing and electrical fixtures - Bricks, concrete, glass - Non-asbestos insulation
Foundry	<ul style="list-style-type: none"> - Foundry Waste 	<ul style="list-style-type: none"> - Waste sand, slag, sludge, core waste, dust fines, etc.
Special Other	<ul style="list-style-type: none"> - Special (excluding foundry wastes) - Industrial process - Pollution control - Sludges - Waste requiring special waste certification 	<ul style="list-style-type: none"> - Spill cleanup wastes (petroleum cont. soil, etc.) - Manufacturing process wastes (resins, oxides, etc.) - Water / wastewater sludges - Asbestos-containing wastes - Incinerator residues - Industrial sludges - Low-level PCB wastes - Wastes mixed with special wastes
Coal Ash	<ul style="list-style-type: none"> - Coal Ash 	<ul style="list-style-type: none"> - Coal ash - Fly ash, bottom ash, etc. - Ash resulting from the combustion of coal
FGD Waste	<ul style="list-style-type: none"> - Flue gas desulfurization byproducts 	<ul style="list-style-type: none"> - Scrubber / FGD sludge - Pollution control sludges resulting from coal combustion
Other	<ul style="list-style-type: none"> - Any other solid waste not regulated as any of the above. 	<ul style="list-style-type: none"> - Oil / gas / mining wastes - Pesticide containers - Railroad ties

Table 3.
Number of Permitted Solid Waste Facilities Operating During 2000

A. Land Disposal Facilities		B. Processing Facilities	
Municipal Solid Waste Landfills	36	Solid Waste Incinerators⁽⁴⁾	3
• Privately Owned	26	• Municipal	1
• Publicly Owned ⁽¹⁾	10	• Industrial ⁽³⁾	1
		• Hospital	1
Construction-Demolition Sites⁽²⁾	10	Transfer Stations	55
Restricted Waste Sites⁽³⁾	20	• Privately Owned	40
Nonmunicipal Solid Waste Landfills⁽³⁾	4	• Publicly Owned	15
TOTAL	70	TOTAL	58

(1) Includes Belmont Ash Monofill which receives municipal incinerator ash.

(2) Some facilities are captive sites.

(3) All facilities are captive sites.

(4) Incinerators designed to accept at least 10 tons per day.

Table 4.
Types of Landfills and Incinerators

A. Land Disposal		
Type	Acceptable Wastes	Data reported to IDEM
Municipal Solid Waste Landfill	Municipal waste, construction-demolition debris, special wastes, industrial wastes, other non-municipal wastes	Yes
Construction-Demolition Site	Construction-demolition debris only (unless otherwise approved by IDEM)	Yes
Restricted Waste Site	Non-municipal waste(s) specified in permit	Yes
Nonmunicipal Solid Waste Landfill	Wastes other than residential and commercial wastes	Yes

B. Incinerators		
Type	Acceptable Wastes	Data reported to IDEM
Large solid waste	Municipal waste, construction-demolition debris, special wastes, industrial wastes, other non-municipal wastes	Yes
Small solid waste ⁽¹⁾	Municipal waste, construction-demolition debris, special wastes, industrial wastes, other non-municipal wastes	No
Large infectious waste	Infectious waste (may also accept certain non-infectious waste)	Yes
Small infectious waste ⁽²⁾	Infectious waste (may also accept certain non-infectious waste)	No

(1) Incinerators designed to accept less than 10 tons per day (329 IAC 11-19-2).

(2) Incinerators designed to accept less than 7 tons per day (329 IAC 11-19-2).

Restricted waste sites can accept only materials specified in their landfill permits as determined by the classification criteria in 329 IAC 10-9-4. Coal combustion by-products comprise the largest portion of the waste tonnage disposed at restricted waste sites.

Like restricted waste sites, **nonmunicipal solid waste landfills** can accept only materials specified in their landfill permits. But nonmunicipal solid waste landfills have more stringent design standards than restricted waste sites. All of Indiana's nonmunicipal solid waste landfills are currently captive facilities and therefore, are not available for public use.

In addition to the facility standards discussed here, each individual site may dispose of other materials not included in the above definitions according to their individual permits.

● Processing Facilities

The term *incinerator* is defined broadly as an engineered facility designed to burn solid waste under controlled conditions. As Table 4 shows, incinerators in Indiana are categorized and regulated as either **solid waste incinerators** or **infectious waste incinerators**.

Solid waste incinerators with a design capacity of at least 10 tons per day and infectious waste incinerators with a design capacity of at least 7 tons per day must obtain a solid waste permit under Indiana solid waste rules 329 IAC 11-9 and 329 IAC 11-17. Other incinerators must notify IDEM and comply with certain operational requirements as stated in 329 IAC 11-19-2 and are deemed to be permitted.

Although incinerators are permitted and regulated under the category of processing facilities, they are considered to be final disposal facilities for planning and disposal fee purposes, as evident in statutory language. The disposal reduction goal language of P.L. 10-1990 also categorizes incineration as a final disposal method.

A **transfer station** is a facility at which solid waste is transferred from a vehicle or container to another vehicle or container for transportation purposes (329 IAC 11-2-47). Transfer stations may manage materials in

other ways according to their individual permits. For example, activities at a permitted transfer station may involve only the consolidation of waste loads for further transport, or may also incorporate some form of materials recovery, during which recyclables are segregated for recycling or reuse.

Tire, paper, and medical waste processing sites also are defined as processing facilities by statute; however, no such facilities were in operation during 2000.

● Accuracy of Facility Reports

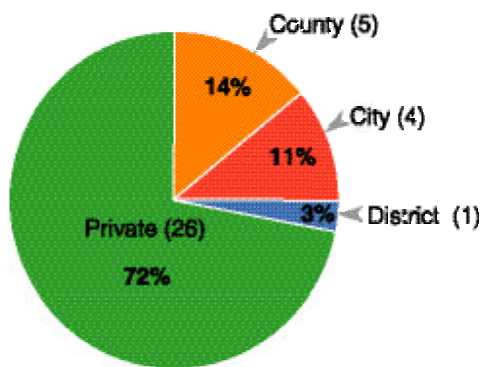
IDEM conservatively estimates that municipal solid waste tonnages may be over-reported by 20 to 40 percent due to some loads of municipal solid waste being mixed with nonmunicipal solid waste but identified only as municipal solid waste. According to studies in other states, construction-demolition wastes alone can constitute as much as one-third of municipal solid waste. The portion of municipal solid waste that is actually special/other waste is unknown. Because of these uncertainties, caution should be used when attempting to draw conclusions regarding exact amounts of particular waste types.

Municipal Solid Waste Landfill Ownership

Since the facility quarterly report program began in 1991, more of Indiana MSW landfills have been privately-owned than publicly-owned (Table 3). Figure 2 shows the percentages of private and public ownership of MSW landfills in 2000.

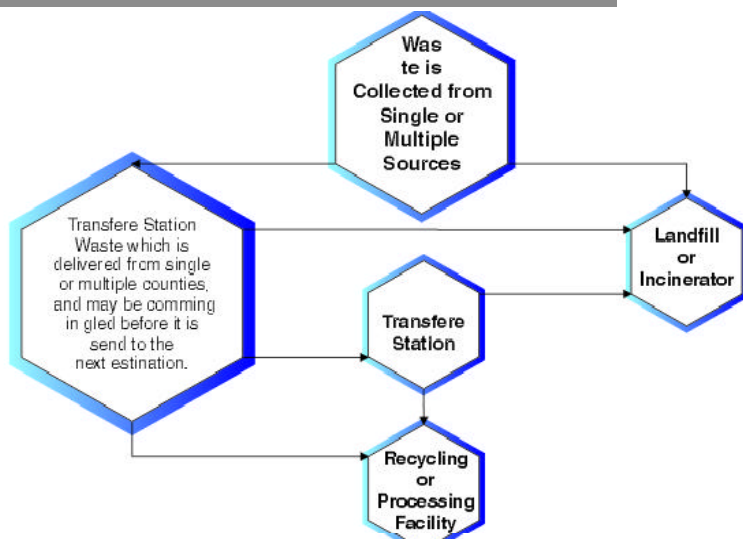
Most construction-demolition and restricted waste sites are privately owned. About seventy percent of Indiana's transfer stations and other permitted processing facilities are privately owned.

Figure 2.
Municipal Solid Waste Landfill Ownership by Percent During 2000



Note: The number in the parenthesis represents the number of facilities.

Figure 3.
Waste Disposal Pathways



Origin of Waste

Origin of waste can be broken down by state and by county. A discussion of out-of-state waste is provided beginning on page 27.

Determination of the point of origin of waste by county is difficult due to the manner in which waste is collected and transported to landfills. Waste collection vehicles may transport the waste directly to a landfill and the hauler will report to the landfill operator the county of origin. If the waste collection routes include more than one county as points of origin, the hauler is required to report an estimated percentage of waste for each county to the landfill owner/operator. Furthermore, IDEM guidance instructs land disposal facilities to list the origin of waste received from transfer stations as the county in which the transfer station is located. The extent to which this actually occurs, however, is unknown.

Some waste collection vehicles transport waste to a transfer station, where the hauler is required to report the county (or counties) of origin. The waste received at the transfer station may be commingled with waste from other waste collection vehicles. All or part of the commingled waste may then go to one or more landfills, incinerators, transfer stations, or recycling/processing facilities, where the origin typically is reported as being the county in which the transfer station is located. Figure 3 illustrates the variety of paths that waste can take after it is collected.

In summary, the county identified on some quarterly reports may not be the point of origin, but in fact a transfer point for the waste before it is delivered to the landfill. Table 5 lists estimated amounts disposed at Indiana facilities by county of origin.

Table 5.**Waste Tons Disposed in Indiana¹, by Estimated County of Origin**

County	1992	1993	1994	1995	1996	1997	1998	1999	2000
Adams	31,228	28,154	33,250	38,558	82,755	49,022	46,997	46,647	35,183
Allen	378,087	480,868	501,093	492,171	497,446	550,552	528,523	532,067	563,565
Bartholomew	120,055	132,685	168,223	167,021	160,957	173,275	168,594	170,936	168,640
Benton	3,138	4,236	3,087	1,642	1,844	1,900	2,199	2,429	1,768
Blackford	18,317	17,296	18,360	20,732	24,642	27,374	48,542	30,049	18,025
Boone	33,573	79,080	86,576	89,008	76,167	82,072	66,424	88,067	79,787
Brown	7,553	8,537	6,527	6,547	5,475	5,318	4,320	7,414	5,680
Carroll	11,527	13,089	12,487	16,707	20,003	23,776	19,773	22,294	21,530
Cass	33,271	39,758	70,565	37,950	44,121	43,908	52,297	46,347	44,244
Clark	78,966	75,107	75,895	82,523	84,029	89,442	95,526	81,612	98,511
Clay	17,542	17,020	16,284	16,472	19,986	22,152	22,960	27,370	28,258
Clinton	23,417	54,264	51,099	34,023	102,352	47,383	45,816	40,673	49,343
Crawford	4,286	1,417	3,336	2,310	2,108	2,040	5,744	4,716	1,412
Daviess	26,387	27,476	27,553	22,514	26,375	27,404	30,214	26,620	33,003
De Kalb	109,972	81,753	105,196	118,703	134,506	158,921	170,934	130,392	151,427
Dearborn	7,075	10,576	8,271	2,892	1,097	2,230	2,363	2,047	9,124
Decatur	23,419	24,155	24,675	25,690	26,493	25,927	26,226	26,186	28,521
Delaware	152,730	132,439	150,559	146,606	153,445	152,903	156,084	126,859	154,664
Dubois	33,639	46,943	45,834	45,760	48,633	41,479	42,606	48,287	57,241
Elkhart	386,796	428,892	427,389	396,768	403,842	418,501	436,867	501,018	413,623
Fayette	17,841	14,041	19,835	15,971	15,214	15,240	11,949	17,294	17,493
Floyd	85,859	79,568	79,036	71,948	75,227	67,047	55,835	58,657	56,326
Fountain	18,660	19,360	15,829	151,202	58,611	80,733	58,391	44,248	44,952
Franklin	5,785	5,727	4,203	349	4,526	5,235	4,104	4,300	5,468
Fulton	35,608	20,939	22,472	23,148	25,720	30,168	45,105	50,356	39,723
County	1992	1993	1994	1995	1996	1997	1998	1999	2000
Gibson	592,435	474,288	539,368	761,712	674,664	868,292	1,743,917	945,627	1,038,734
Grant	59,575	78,402	61,195	84,441	75,684	89,656	83,442	104,116	86,924
Greene	17,250	20,576	18,870	20,420	25,107	18,448	20,543	23,605	24,112
Hamilton	89,298	122,391	154,743	155,356	132,530	155,769	232,712	261,592	168,933
Hancock	35,709	27,489	27,149	29,239	48,941	100,261	110,809	115,518	120,722
Harrison	15,184	1,579	1,459	66	115	24	112	314	473
Hendricks	75,558	92,919	106,710	136,330	151,369	130,399	126,982	141,111	151,346
Henry	60,959	78,887	81,476	88,945	101,482	92,410	94,261	76,231	62,868
Howard	131,281	123,173	142,633	94,813	145,134	158,536	169,044	157,698	188,929
Huntington	31,006	32,679	51,821	52,858	49,907	39,284	38,921	38,263	41,292
Jackson	53,423	48,360	68,799	71,755	69,183	55,372	57,475	55,609	59,808
Jasper	425,922	400,564	481,436	485,459	441,459	142,311	159,756	166,873	168,003
Jay	15,324	12,909	20,176	23,164	21,791	22,599	54,742	47,752	23,032
Jefferson	262,179	289,067	299,461	227,992	200,642	95,900	63,526	69,832	126,774
Jennings	11,362	10,730	13,341	16,118	16,903	18,747	21,175	20,760	19,987
Johnson	78,177	88,460	74,928	81,456	100,369	155,967	155,694	149,403	161,435
Knox	40,542	45,678	90,257	72,336	40,287	68,449	53,088	52,723	60,216
Kosciusko	145,455	132,465	169,080	198,453	223,056	243,412	241,978	232,641	226,065
Lagrange	15,514	22,836	23,055	19,776	25,069	26,265	50,329	35,700	32,846
Lake	742,521	533,749	574,747	770,020	910,783	769,061	930,599	1,115,650	1,100,952
La Porte	168,305	160,302	137,563	156,527	140,152	149,638	134,509	124,388	128,926
Lawrence	45,091	53,041	44,517	55,743	42,217	46,633	39,565	36,273	57,211

County	1992	1993	1994	1995	1996	1997	1998	1999	2000
Madison	134,795	121,846	150,131	162,515	180,448	182,565	173,774	176,554	171,067
Marion	1,584,135	1,531,189	1,478,486	1,498,477	1,409,899	1,432,887	1,341,364	1,446,384	1,556,981
Marshall	58,568	85,366	81,153	86,040	73,941	81,075	91,128	97,866	97,969
Martin	6,436	7,647	5,150	9,811	7,798	7,898	16,886	19,298	14,916
Miami	24,846	40,395	22,219	34,860	28,231	28,471	32,925	41,634	42,320
Monroe	119,653	116,753	105,813	108,008	114,993	128,903	137,838	134,706	137,420
Montgomery	53,011	56,897	61,206	58,368	47,743	78,910	158,463	234,947	168,214
Morgan	19,197	18,408	19,172	29,448	49,670	41,391	49,879	49,548	65,400
Newton	10,093	11,682	14,638	13,021	18,355	17,910	13,727	12,638	12,616
Noble	36,958	45,485	51,763	45,305	47,762	82,792	140,173	113,300	114,368
Ohio	183	656	790	245	118	67	51	357	250
Orange	11,922	14,857	18,942	15,314	15,814	17,750	18,034	14,938	19,162
Owen	8,253	6,936	13,889	14,381	13,598	13,791	8,131	8,436	9,817
Parke	6,294	6,547	8,132	7,261	9,567	16,589	11,682	8,887	11,278
Perry	9,945	8,513	6,574	2,546	3,806	45,736	77,801	130,014	152,844
Pike	661,782	618,918	466,114	600,831	387,362	605,544	520,868	101,361	18,273
Porter	124,091	163,073	105,189	65,748	80,347	78,998	80,199	95,070	106,677
Posey	303,103	276,065	363,826	359,114	380,047	441,333	437,653	378,171	288,486
Pulaski	8,120	9,371	7,585	8,470	9,260	7,654	8,283	7,401	6,443
Putnam	29,396	29,836	29,689	29,756	36,454	30,472	28,944	29,539	36,378
Randolph	32,827	23,606	27,086	28,514	29,113	30,653	34,377	30,899	24,829
Ripley	17,969	17,573	21,096	17,977	12,872	13,219	12,123	12,952	11,593
Rush	48,646	45,651	37,167	39,091	30,802	20,262	30,453	36,719	26,615

County	1992	1993	1994	1995	1996	1997	1998	1999	2000
Scott	20,878	18,304	13,135	17,975	18,640	20,225	21,502	23,583	24,788
Shelby	58,184	58,863	62,028	64,486	84,071	100,964	100,517	104,384	113,831
Spencer	56,516	38,011	38,154	28,842	46,680	15,702	203,585	145,984	207,722
St. Joseph	281,068	282,567	256,973	248,902	241,115	253,189	232,307	200,874	217,838
Starke	18,620	15,302	19,238	13,697	14,544	14,593	11,985	9,294	8,203
Steuben	28,099	20,453	22,100	24,784	24,392	21,593	19,600	26,263	26,925
Sullivan	785,669	837,890	844,348	811,767	1,008,275	1,016,140	948,650	905,662	948,941
Switzerland	1,203	2,128	3,724	3,331	1,026	1,953	1,768	1,988	1,239
Tippecanoe	185,129	237,555	187,477	179,664	240,651	176,748	187,132	164,502	204,184
Tipton	14,553	13,091	12,998	14,802	13,039	14,092	12,267	16,906	12,555
Union	1,865	2,358	2,363	1,684	1,734	1,124	482	1,537	2,168
UNKNOWN	1,254	979	627	433	0	0	0	0	0
Vanderburgh	227,850	262,894	250,753	286,095	237,839	242,216	239,678	249,633	252,567
Vermillion	38,882	45,628	41,297	38,601	46,740	36,429	37,872	35,210	36,423
Vigo	206,834	215,119	226,194	225,832	213,793	202,182	206,839	229,081	212,474
Wabash	189,054	185,535	255,920	217,760	207,042	233,976	274,892	256,013	215,805
Warren	2,157	2,823	1,047	146	371	96	280	1,299	416
Warrick	83,808	47,199	49,010	44,989	42,168	45,379	49,245	45,359	43,342
Washington	12,475	13,845	18,085	18,317	19,364	18,189	20,782	19,949	28,020
Wayne	90,182	95,676	113,912	94,583	90,740	87,538	94,227	87,871	80,310
Wells	30,864	45,461	40,101	37,010	30,126	28,472	31,396	25,950	21,800
White	22,176	25,757	28,603	27,499	32,240	32,436	29,958	26,294	28,709
Whitley	52,752	40,488	51,687	27,419	28,341	16,540	10,354	14,770	21,797

¹ Note: The information in Table 5 reflects the amount of waste from each county that was disposed of in an Indiana final disposal facility, either by direct haul or through an Indiana transfer station. It does not include waste disposed out-of-state, which explains the low amounts reported for counties near state lines. These amounts have been updated due to an error discovered in the calculation for the majority of the counties. In addition, it was discovered that some landfills were reporting alternate daily cover as waste received.

Solid Waste Land Disposal Facilities

The data in this annual summary reflects the information provided in the solid waste facility quarterly reports as submitted to IDEM. There may be some differences between the numbers published in this summary report and previously published annual reports. The differences are due primarily to improvements in the data quality checks made by IDEM Office of Land Quality. These include correcting waste erroneously reported as disposed that was actually re-used for alternative daily cover and landfill construction.

Figure 4.
Disposal of Solid Waste by Landfill Type During 2000

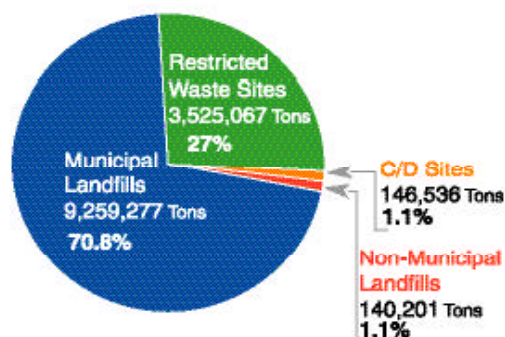


Figure 5.
Disposal of Solid Waste by Waste Type During 2000

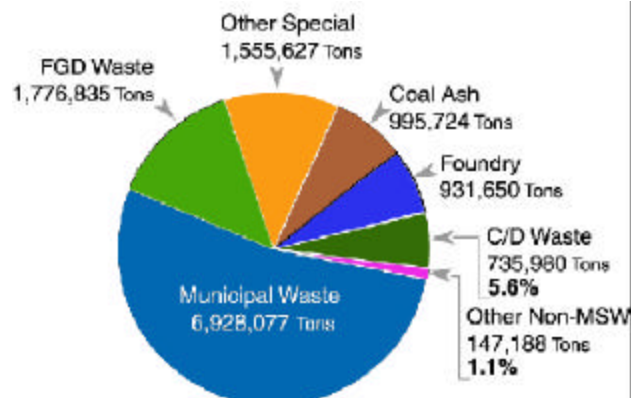


Table 6 displays the amount of solid waste disposed at Indiana land disposal facilities by each reported waste type during 2000. Figure 4 displays this information by landfill type, and Figure 5 by waste type. Table 7 displays similar information from 1992 through 2000 for municipal and nonmunicipal waste. Table 8 shows the same information as Table 7 but excludes direct imports to Indiana landfills. Due to reporting limitations, waste originating outside Indiana that is brought into the state through an in-state transfer station and disposed in an Indiana landfill has not been excluded from the quantities in Table 8.

Waste received at solid waste incinerators is discussed on page 24 in the chapter on processing facilities.

Table 6.
Disposal of Solid Waste by Landfill Type and Waste Type During 2000

Waste Type	Tons of Waste Disposed				
	Municipal Solid Waste Landfills	Construction/ Demolition Sites	Restricted Waste Sites	Nonmunicipal Solid Waste Landfills	All Landfills
Municipal	6,928,077	0	0	0	6,928,077
C/D	587,489	146,536	1,955	0	735,980
Foundry	107,366	0	824,284	0	931,650
Other Special	1,355,337	0	79,509	120,781	1,555,627
Coal Ash	170,927	0	824,797	0	995,724
FGD Waste	0	0	1,776,835	0	1,776,835
Other NonMSW	110,081	0	17,687	19,420	147,188
TOTAL	9,259,277	146,536	3,525,067	140,201	13,071,081

Table 7.

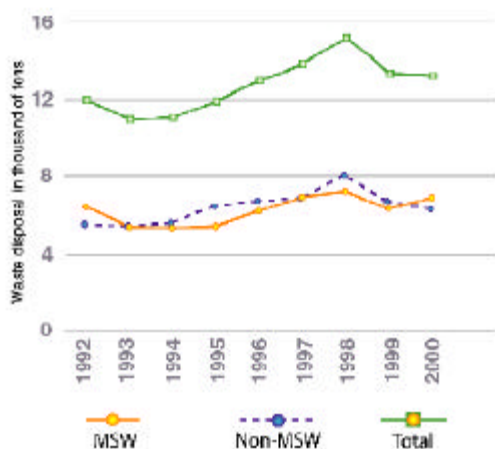
Annual Disposal at Solid Waste Land Disposal Facilities by Landfill Type and Waste Type (Includes waste imports to Indiana)

Landfill Type	Waste Type	Tons of Waste Disposed								
		1992	1993	1994	1995	1996	1997	1998	1999	2000
Municipal Solid Waste Landfills	MSW	6,437,797	5,442,952	5,403,287	5,461,501	6,217,748	6,959,493	7,233,635	6,634,100	6,928,077
	NonMSW	1,919,953	1,966,459	1,820,890	2,277,583	2,506,843	2,757,504	2,901,949	2,821,091	2,331,200
	TOTAL	8,357,750	7,409,411	7,224,177	7,739,084	8,724,591	9,716,997	10,135,584	9,455,191	9,259,277
Construction/Demolition Sites	MSW	0	0	0	0	0	0	0	0	0
	NonMSW	120,502	146,491	156,718	144,773	212,453	187,725	195,723	229,010	146,536
	TOTAL	120,502	146,491	156,718	144,773	212,453	187,725	195,723	229,010	146,536
Restricted Waste Sites	MSW	0	0	0	0	0	0	0	0	0
	NonMSW	3,272,803	3,152,091	3,431,672	3,828,695	3,824,287	3,740,680	4,689,484	3,438,190	3,525,067
	TOTAL	3,272,803	3,152,091	3,431,672	3,828,695	3,824,287	3,740,680	4,689,484	3,438,190	3,525,067
Nonmunicipal Solid Waste Landfills	MSW	0	0	0	0	579	0	0	0	0
	NonMSW	65,031	33,370	31,863	31,441	28,271	34,016	41,264	71,131	140,201
	TOTAL	65,031	33,370	31,863	31,441	28,850	34,016	41,264	71,131	140,201
All Landfills	MSW	6,437,797	5,442,952	5,403,287	5,461,501	6,218,327	6,959,493	7,233,635	6,634,100	6,928,077
	NonMSW	5,378,289	5,298,411	5,441,143	6,282,492	6,571,854	6,719,925	7,828,420	6,559,422	6,143,004
	TOTAL	11,816,086	10,741,363	10,844,430	11,743,993	12,790,181	13,679,418	15,062,055	13,193,522	13,071,081

Figure 6.

Annual Disposal at All Solid Waste Land Disposal Facilities

(Includes waste imports to Indiana)



(Excludes direct imports to Indiana landfills)

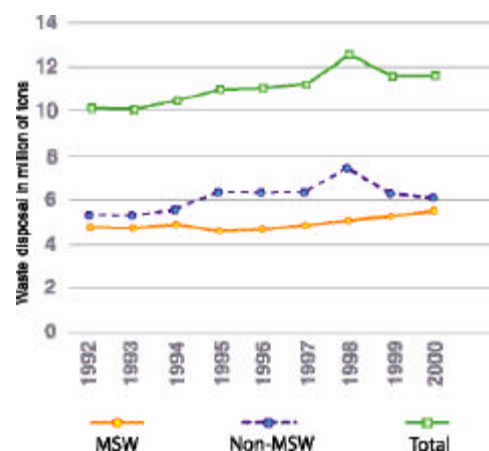


Table 8.
Annual Disposal at Solid Waste Land Disposal
Facilities by Landfill Type and Waste Type
 (Excludes direct imports to Indiana landfills)

Landfill Type	Waste Type	Tons of Waste Disposed								
		1992	1993	1994	1995	1996	1997	1998	1999	2000
Municipal Solid Waste Landfills	MSW	4,788,701	4,750,103	4,902,171	4,620,376	4,696,297	4,858,656	5,080,056	5,297,116	5,515,530
	NonMSW	1,725,070	1,837,708	1,785,856	2,195,249	2,195,206	2,275,083	2,407,182	2,439,624	2,166,705
	TOTAL	6,513,771	6,587,811	6,688,027	6,815,625	6,891,503	7,133,739	7,487,238	7,736,740	7,682,235
Construction/Demolition Sites	MSW	0	0	0	0	0	0	0	0	0
	NonMSW	120,502	146,491	153,421	137,998	135,055	148,257	166,489	205,432	144,976
	TOTAL	120,502	146,491	153,421	137,998	135,055	148,257	166,489	205,432	144,976
Restricted Waste Sites	MSW	0	0	0	0	0	0	0	0	0
	NonMSW	3,272,803	3,152,091	3,431,672	3,828,695	3,824,287	3,740,680	4,689,484	3,438,190	3,525,067
	TOTAL	3,272,803	3,152,091	3,431,672	3,828,695	3,824,287	3,740,680	4,689,484	3,438,190	3,525,067
Nonmunicipal Solid Waste Landfills	MSW	0	0	0	0	579	0	0	0	0
	NonMSW	65,031	33,370	31,863	31,441	28,271	34,016	38,860	49,300	139,966
	TOTAL	65,031	33,370	31,863	31,441	28,850	34,016	38,860	49,300	139,966
All Landfills	MSW	4,788,701	4,750,103	4,902,171	4,620,376	4,696,876	4,858,656	5,080,056	5,297,116	5,515,530
	NonMSW	5,183,406	5,169,660	5,402,812	6,193,383	6,182,819	6,198,036	7,302,015	6,132,546	5,976,714
	TOTAL	9,972,107	9,919,763	10,304,983	10,813,759	10,879,695	11,056,692	12,382,071	11,429,662	11,492,244

Municipal Solid Waste Landfills

Most questions about land disposal facilities deal primarily with municipal solid waste (MSW) landfills. MSW landfills receive waste materials from residences, businesses, institutions, and industries. As a result of the wide range of waste types these landfills receive, they are built to more stringent landfill design criteria than, for example, a construction-demolition site that accepts only construction-demolition wastes. Note that Figure 9 shows the disposal of out-of-state waste vs. Indiana waste at MSW landfills. A more detailed discussion of out-of-state waste is provided beginning on page 27.

Figure 7.
Disposal of Solid Waste at Municipal Solid Waste Landfills by Waste Type During 2000

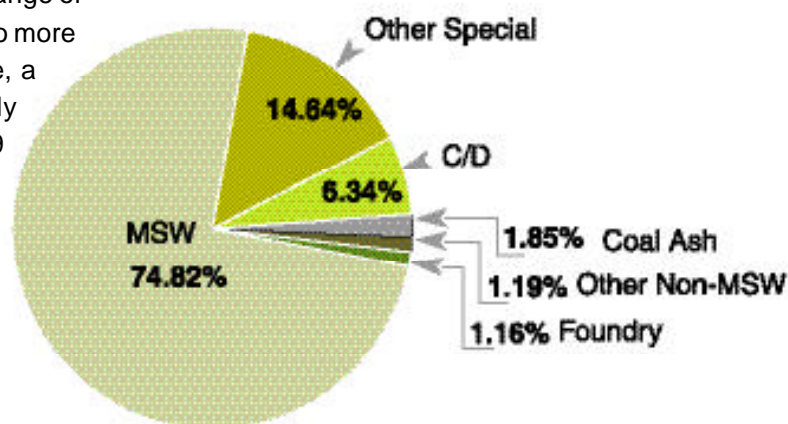
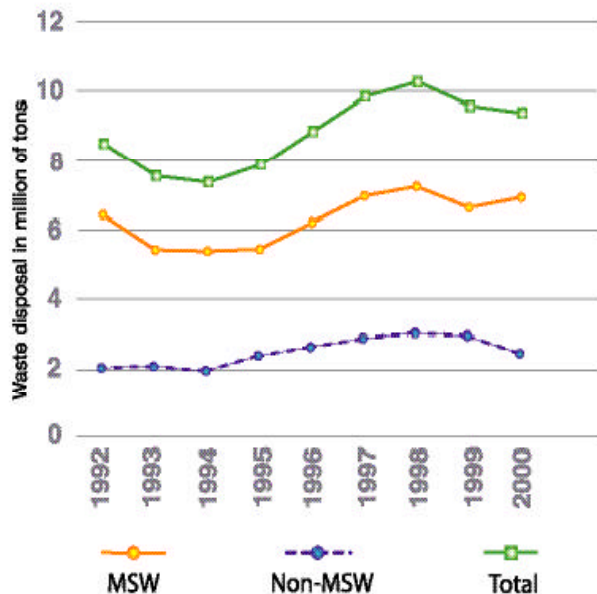


Figure 8.
Annual Disposal at Municipal Solid Waste Landfills

(Includes waste imports to Indiana)



(Excludes direct imports to Indiana landfills)

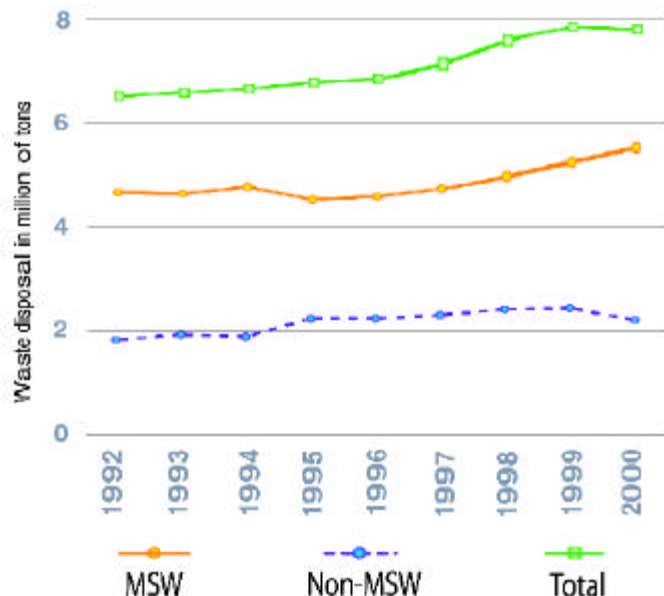


Figure 9.
Annual Disposal at Municipal Solid Waste Landfills by Waste Origin

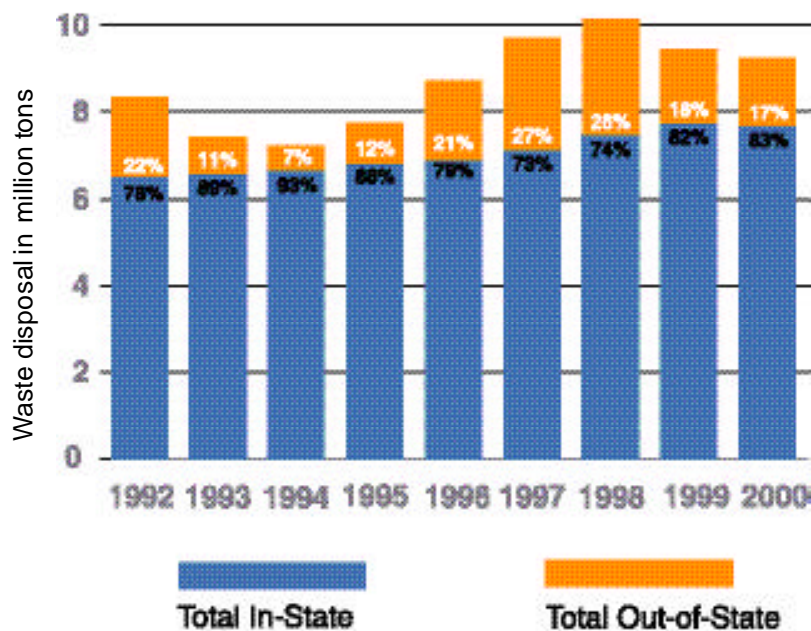


Figure 10 shows the distribution of disposal among MSW landfills. Notice that about one third (33% or 12) of MSW landfills accepted less than 100,000 tons of solid waste.

Figure 10.
Distribution of Disposal at Municipal Solid Waste Landfills During 2000

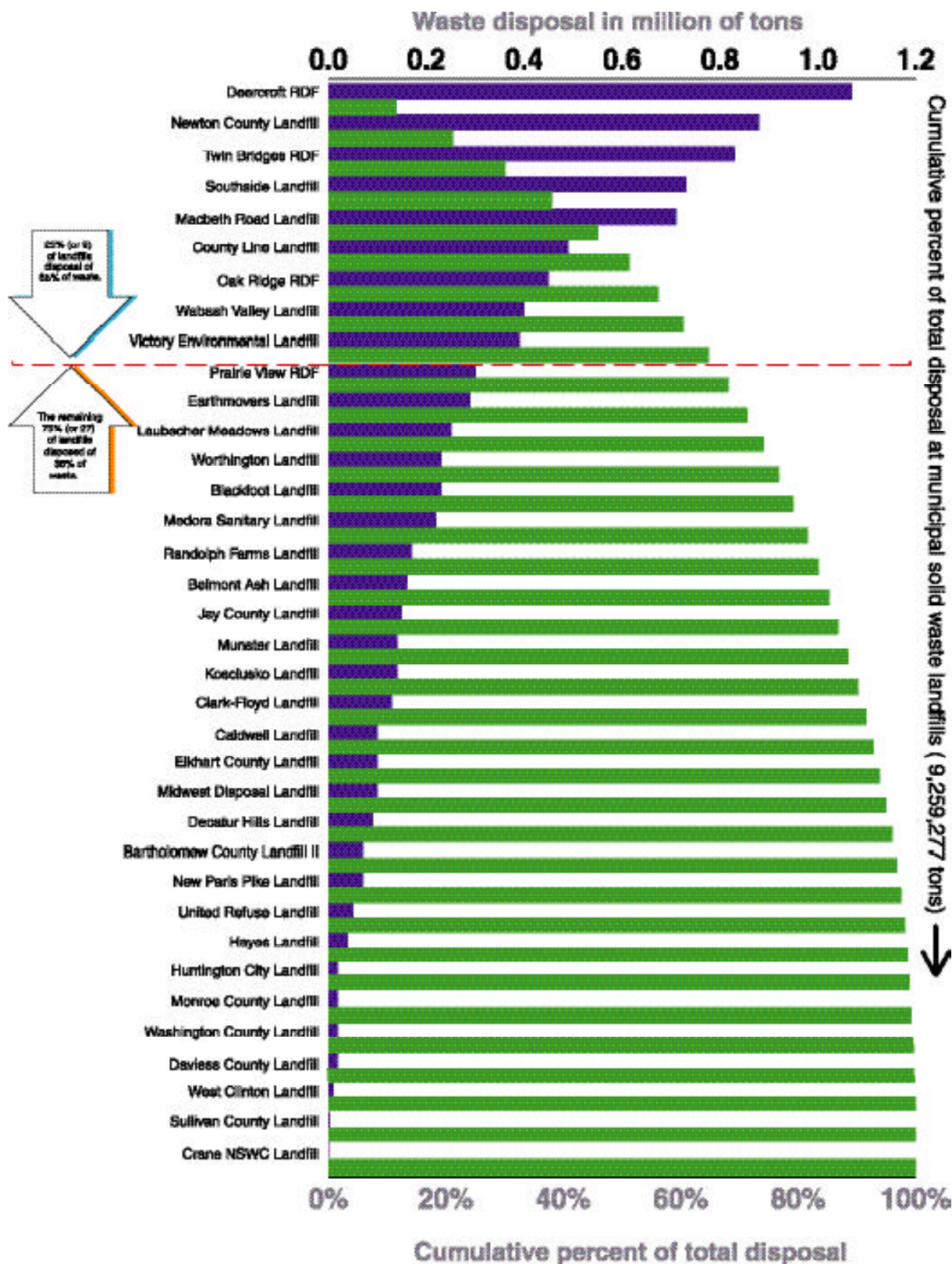


Table 9 summarizes total disposal at individual MSW landfills during 2000. More detailed disposal data for all solid waste disposal facilities is given at the end of this report in “2000 Solid Waste Facility Profiles.”

Table 9.
Total Disposal at Municipal Solid Waste Landfills During 2000

County Location of Facility	Facility Name	Waste Disposal in Tons	Number of Operating Days	Disposal per Operating Day (Tons)
Allen	Macbeth Road Landfill	715,393	307	2,330
Allen	United Refuse Landfill	54,418	154	353
Bartholomew	Bartholomew County Landfill II	72,665	306	237
Cass	Oak Ridge Recycling and Disposal Facility	457,953	307	1,492
Clark	Clark-Floyd Landfill	139,006	307	453
Clinton	Midwest Disposal Landfill	101,536	307	331
Daviess	Daviess County Landfill	26,684	305	87
Decatur	Decatur Hills Landfill	99,175	230	431
Elkhart	Earthmovers Landfill	293,788	308	954
Elkhart	Elkhart County Landfill	102,145	289	353
Fulton	County Line Landfill	494,433	308	1,605
Greene	Worthington Landfill	237,305	310	766
Hendricks	Twin Bridges Recycling and Disposal Facility	832,433	312	2,668
Henry	Hayes Landfill	46,775	307	152
Huntington	Huntington City Landfill	29,061	264	110
Jackson	Medora Sanitary Landfill	221,406	303	731
Jay	Jay County Landfill	151,000	337	448
Kosciusko	Kosciusko Landfill	149,177	307	486
Lake	Munster Landfill	149,260	259	576
La Porte	Deercroft Recycling and Disposal Facility	1,074,816	309	3,478
Marion	Southside Landfill	736,639	310	2,376
Marion	Belmont Ash Landfill	161,250	311	518
Martin	Crane Naval Surface Warfare Center Landfill	1,227	246	5
Monroe	Monroe County Landfill	26,944	308	87
Newton	Newton County Landfill Partnership	885,336	308	2,874
Pike	Blackfoot Landfill	235,620	301	783
Randolph	Randolph Farms Landfill	177,853	311	572
St. Joseph	Prairie View Recycling and Disposal Facility	309,247	307	1,007
Shelby	Caldwell Landfill	105,037	308	341
Sullivan	Sullivan County Landfill	3,442	214	16
Vanderburgh	Laubscher Meadows Landfill	257,278	309	833
Vermillion	West Clinton Landfill	10,557	310	34
Vigo	Victory Environmental Landfill	399,709	307	1,302
Wabash	Wabash Valley Landfill	401,373	307	1,307
Washington	Washington County Landfill	26,889	306	88
Wayne	New Paris Pike Landfill	72,447	249	291
Total for all Municipal Solid Waste Landfills		9,259,277		

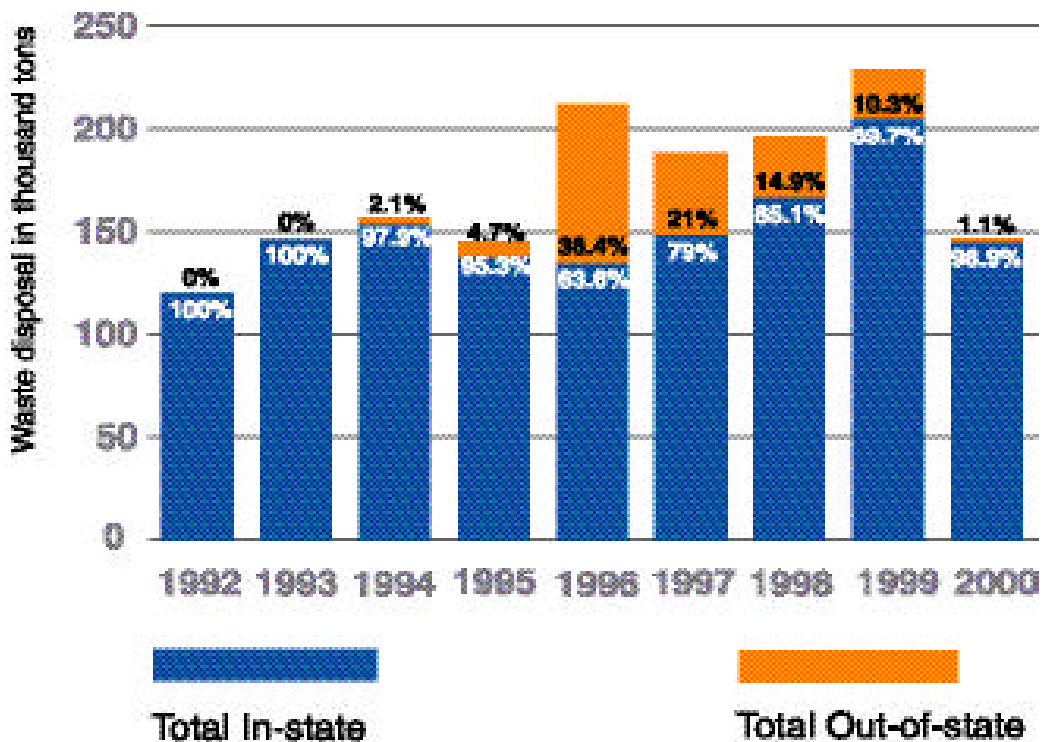
Other Solid Waste Land Disposal Facilities

Construction-Demolition Sites

Construction-demolition sites receive only construction and demolition waste as described in Table 2. As shown in Figure 11, these sites did not receive a significant amount of out-of-state waste until 1996, when the amount of out-of-state waste increased from 5 to 36 percent of total receipts. Lower percentages of out-of-state waste were received by construction-demolition sites between 1997 and 2000. Table 10 provides a listing of the construction-demolition landfills and the total amount of waste each facility received in 2000.



Figure 11.
Annual Disposal at Construction-Demolition Sites by Waste Origin⁽¹⁾



(1) Incomplete data: Feddeler C/D site did not submit a quarterly report to IDEM for third quarter.

Table 10.
Total Disposal at Construction-Demolition Sites During 2000

County Location of Facility	Facility Name	Waste Disposal In Tons
Allen	M & M C/D Site	37
Elkhart	Warner & Sons Inc. C/D Site	53,344
Lake	Feddeler C/D Site ⁽¹⁾	7,631 ⁽¹⁾
Madison	Industrial Removal C/D Site	11,898
Martin	Crane Naval Surface Warfare Center C/D Site ⁽²⁾	985 ⁽²⁾
Monroe	Monroe County SWMD C/D Site	16,331
Pike	Velpen Solid C/D Site	16,126
Posey	Springfield Environmental C/D Site	23,426
Tippecanoe	Purdue University C/D Site	6,617
Vermillion	West Clinton II C/D Site	10,141
Total for All Construction-Demolition Sites ⁽¹⁾⁽³⁾ :		146,536 ⁽¹⁾⁽³⁾

(1) Incomplete data: Feddeler C/D Site did not submit a quarterly report to IDEM for third quarter.

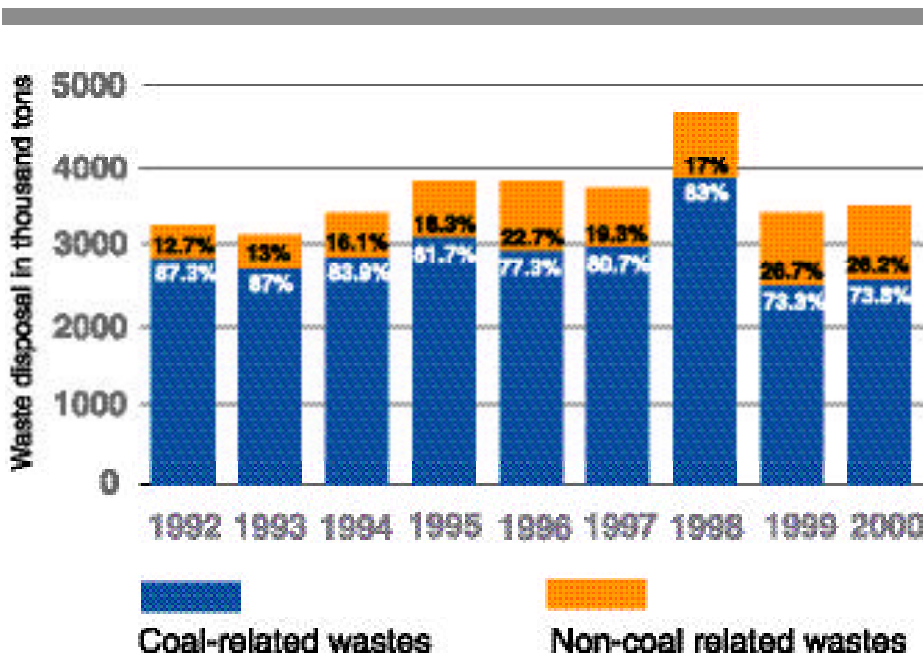
(2) Prior to 2000, Crane Naval Surface Warfare Center C/D Site receipts were erroneously reported on the Crane MSW report. This was corrected and the Crane C/D Site now appears as a separate site.

(3) Dorsey Paving C/D Site closed in June 2000 and accepted no waste this year. New Paris Pike C/D Site closed temporarily in 2000 and received no waste this year.

Restricted Waste Sites

Restricted waste sites also receive a limited range of wastes, as specified in the facility permit. Most sites are ash, sludge, or foundry monofills. Coal combustion wastes from power plants accounted for 73 percent of the total tonnage disposed at restricted waste sites in 2000 (Figure 12). Note that prior to 1996, coal combustion wastes were not individually reported waste types on the solid waste facility quarterly reporting program. Before 1996, the amount of coal-related wastes disposed was estimated based on the amount of waste received at specific types of restricted waste sites related to coal combustion.

Figure 12.
Annual Disposal at Restricted Waste Sites by Waste Type



The total waste disposed each year in restricted waste sites is much larger than the amount received at construction-demolition sites, although not as large as the amount of waste received by municipal solid waste landfills (Figure 4). No restricted waste sites have reported receiving out-of-

state waste since 1992. Table 11 provides a listing of the restricted waste sites and the total amount of waste each facility received during 2000.

Table 11.
Total Disposal at Restricted Waste Sites During 2000

County Location of Facility	Facility Name	Waste Disposal In Tons
Bartholomew	City Garage Site RWS 3	77,541
De Kalb	Auburn Foundry RWS 3	72,706
Fountain	Harrison Steel Cast RWS 3	43,900
Gibson	Gibson Station Scrubber RWS 2	1,007,629
Jasper	Schahfer FGD Sludge RWS 1	149,825
Jefferson	Clifty Creek Coal Ash Disposal RWS 3	103,490
Knox	Scepter Industries RWS 1	31,289
Kosciusko	Dalton Foundry RWS 3	120,815
Lake	U.S. Steel - Gary Works RWS 1	301,715
Lawrence	Lehigh Portland Cement Co RWS 1 ⁽¹⁾	17,687 ⁽¹⁾
Noble	Newman Manufacturing RWS 3	55,494
Perry	Waupaca Foundry RWS 3	149,910
Pike	Petersburg Generating Station RWS 3	9,189
Porter	Yard 520 RWS 3	11,929
Posey	SIGECO Filter Cake Disposal RWS 3	180,326
Posey	McCarty RWS 3	24,044
Spencer	Rockport Plant Ash RWS 2	182,595
Sullivan	Merom Station RWS 2	932,605
Wabash	Ford Meter Box RWS 3	2,858
Wabash	Wabash Alloys RWS 1	49,520
Total for All Restricted Waste Sites ⁽¹⁾:		3,525,067⁽¹⁾

(1) Lehigh Portland Cement Co RWS opened May 2000.

Nonmunicipal Solid Waste Landfills

The 1996 rules introduced the terms municipal solid waste (MSW) landfill and nonmunicipal solid waste (NonMSW) landfill, which have been used throughout this report. In previous reports, NonMSW landfills were grouped with MSW landfills under the general heading of “sanitary landfills.” MSW landfills were discussed earlier in this section. There are only a few NonMSW landfills in Indiana and cur-

rently all are captive facilities, not available for public use. They may receive any type of waste described in Table 2 except MSW, pursuant to the specifications of their permits. Table 12 provides a listing of the nonmunicipal solid waste landfills and the total amount of waste each facility received during 2000.

Table 12.
Total Disposal at Nonmunicipal Solid Waste Landfills During 2000

County Location of Facility	Facility Name	Waste Disposal In Tons
Monroe	Dillman Road WWTP Landfill	8,918
Putnam	Heritage Landfill	107,143
Vermillion	Premiere Boxboard Limited Landfill	14,475
Warrick	ALCOA Sanitary Landfill	9,665
Total for All Nonmunicipal Solid Waste Landfills:		140,201

Solid Waste Processing Facilities

Solid waste processing facilities include:

- solid waste incinerators;
- transfer stations; and
- other processing facilities.

Table 13 displays the amount of solid waste received by permitted Indiana incinerators (excluding small-capacity incinerators) and transfer stations by each reported waste type during 2000. Table 14 displays similar information from 1992 through 2000 for municipal and nonmunicipal waste. More detailed data for all solid waste processing facilities is given at the end of this report in "2000 Solid Waste Facility Profiles." Other processing facilities are discussed later in this section.

Table 13.

Solid Waste Received by Processing Facilities by Waste Type During 2000

Waste Type	Tons of Waste Received	
	Incinerators ⁽¹⁾	Transfer Stations
Municipal	632,880	2,213,447
C/D	0	478,543
Foundry	0	0
Other Special	28,672	0
Coal Ash	0	0
FGDWaste	0	0
Other NonMSW	0	18,029
TOTAL	661,552	2,710,019

⁽¹⁾ Does not include small-capacity incinerators receiving less than 10 tons/day of solid waste, or 7 tons/day of infectious waste.

Table 14.

Annual Amount of Solid Waste Received by Processing Facility Type and Waste Type (Includes waste imports to Indiana)

Facility Type	Waste Type	Tons of Waste Received								
		1992	1993	1994	1995	1996	1997	1998	1999	2000
Incinerators ⁽¹⁾	MSW	691,546	731,929	687,198	668,499	689,859	681,147	670,380	669,718	632,880
	NonMSW	34,858	33,736	21,318	22,439	22,839	28,183	25,552	27,901	28,672
	TOTAL	726,404	765,665	708,516	690,938	712,698	709,330	695,932	697,619	661,552
Transfer Stations	MSW	873,466	981,681	1,210,393	1,409,747	1,434,712	1,523,836	1,753,009	1,929,365	2,213,447
	NonMSW	188,653	232,438	206,450	184,807	291,183	404,897	476,100	473,237	496,572
	TOTAL	1,062,119	1,214,119	1,416,843	1,594,554	1,725,895	1,928,733	2,229,109	2,402,602	2,710,019

⁽¹⁾ Does not include small-capacity incinerators receiving less than 10 tons/day of solid waste, or 7 tons/day of infectious waste.

Solid Waste Incinerators

For reporting and permitting purposes, solid waste incinerators are regarded as processing facilities. For solid waste planning and fee purposes, incinerators are considered as final disposal facilities. Table 15 provides a list of the permitted solid waste incinerators that operated in 2000 and the total amount of solid waste received by these facilities. The list does not include the small-capacity incinerators in Indiana that are not required to report to IDEM.

As Table 15 shows, Ogden-Martin Systems of Indianapolis received the greatest amount of waste of any permitted incinerator. The tonnage received annually at this facility is roughly equivalent to 5 percent of the total tonnage of waste either land disposed or incinerated in Indiana. From the waste received by the Ogden-Martin Systems of Indianapolis during 2000, there were about 161,364 tons of ash produced and delivered to the Belmont Ash Landfill for disposal.

Table 15.
Total Waste Received at Incinerators During 2000

County Location of Facility	Facility Name	Waste Received In Tons
Marion	Ogden-Martin Systems of Indianapolis	635,463
Marion	St. Vincent Hospital Incinerator ⁽¹⁾	834
Posey	General Electric Ultem Thermal Oxidizer System	25,255
Total for All Incinerators		661,552

(1) St. Vincent Hospital Incinerator closed 5/31/2000

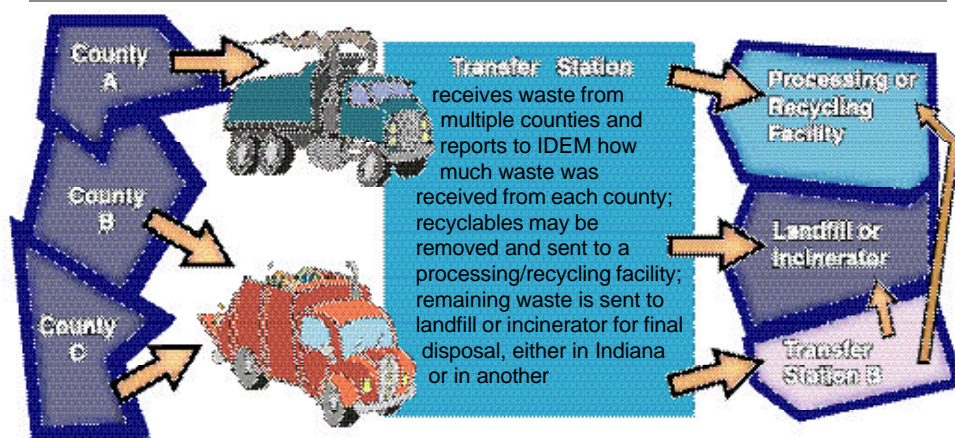
Transfer Stations

Transfer stations are facilities that allow waste from individual collection vehicles to be offloaded and then reloaded into larger vehicles for transport to final disposal facilities. Some transfer stations recover recyclable materials and send them to processing or recycling facilities.

The accountability for differences in incoming and outgoing waste at transfer stations has improved over the years. Although for the first few years of quarterly reporting there was no mechanism to track such differences, reporting forms were improved to include material recovery. Facilities are also required to submit written explanations if the difference between incoming and outgoing tonnage totals is due to a reason other than materials recovery. In most instances, these differences are the result of materials recovery or differences in volume-to-tons conversions.

As discussed on page 10, it is difficult to track the true origin of waste. Waste collection vehicles may transport their waste directly to a landfill or they may take it to a transfer

Figure 13.
Transfer Station Waste Management



station. A landfill receiving waste from a transfer station documents it as originating from the county in which the transfer station is located, regardless of whether any of the waste was generated in that county. The issue is further complicated when the transfer station receives waste from two or more counties, mixes the loads in a central location, removes various recyclables, then transports the waste to two or more landfills, another transfer station and/or a recycling facility. Figure 13 illustrates how the tonnage received from the counties may be known, but the waste sent for final disposal or processing may not directly identify the point of origin.

Table 16.
Destination of Waste Sent from Transfer Stations for Final Disposal

Year	Total Tons Sent To All Facilities	To Indiana Facilities		To Out-of-State Facilities	
		Tonnage	% of Total	Tonnage	% of Total
1992	968,188	951,422	98.3	16,766	1.7
1993	1,138,797	1,085,337	95.3	53,460	4.7
1994	1,319,874	1,172,664	88.8	147,210	11.2
1995	1,519,856	1,344,676	88.5	175,180	11.5
1996	1,639,145	1,468,074	89.6	171,071	10.4
1997	1,835,145	1,629,723	88.8	205,422	11.2
1998	2,131,526	1,917,838	90.0	213,688	10.0
1999	2,274,902	2,059,268	90.5	215,634	9.5
2000	2,558,610	2,268,754	88.7	289,856	11.3

Quarterly reports from transfer stations currently provide the only source of systematic information on the amount of waste exported by Indiana. Table 16 shows the amount of waste sent out-of-state from transfer stations as compared with the amount of waste sent to Indiana final disposal facilities from 1992 to 2000. Figure 14 shows a more detailed breakdown of the destination information for 2000. This information does not provide a complete picture of Indiana waste exports, because the totals in Table 16 are based only on information obtained from processing facility quarterly reports. The amount of waste hauled directly from an Indiana residence or business to an out-of-state destination is not adequately known due to reporting limitations.

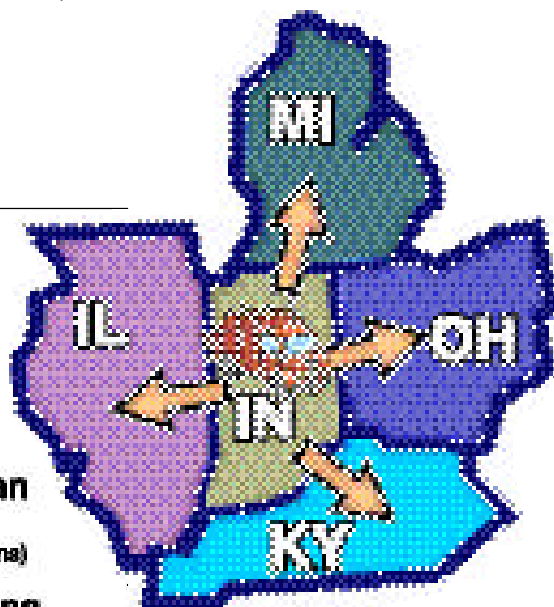
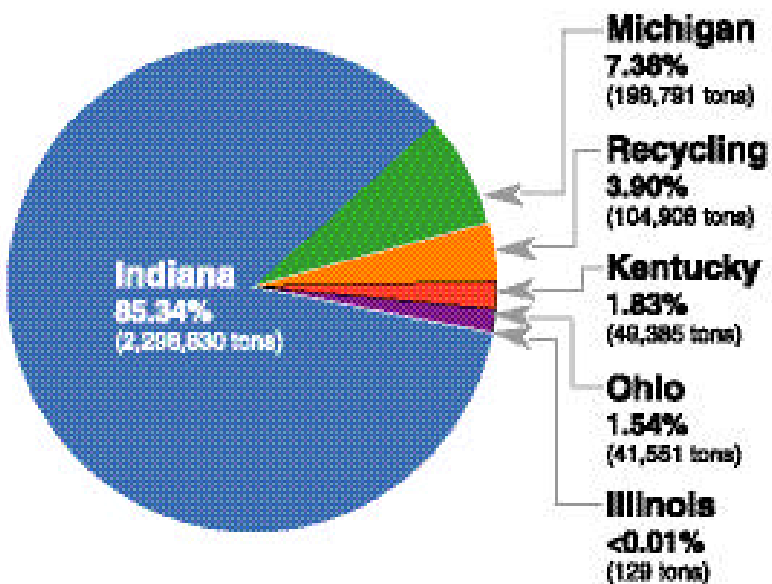
More detailed data for transfer stations is given at the end of this report in "2000 Solid Waste Facility Profiles."

Other Processing Facilities

Other processing facilities permitted by IDEM could include paper, and medical waste processing facilities. None of the facilities operating during 2000 are classified under this category.

IDEM issues permits to any solid waste processing facility upon which is located a solid waste incinerator, transfer station, solid waste baler, solid waste shredder, resource recovery system, composting facility or garbage grinding facility (as defined in 329 IAC 11-2-43, unless excluded by 329 IAC 11-3-1).

Figure 14.
Destination of Waste Sent from Transfer
Stations During 2000



Out-of-State Waste

Solid waste imported from out-of-state sources can be received at landfills, incinerators, or transfer stations. Since 1992, the predominant states of origin for solid waste imports have been the four states contiguous to Indiana (Illinois, Michigan, Ohio, and Kentucky). As Figure 15 shows, the portion of out-of-state waste originating from non-contiguous states has decreased dramatically since 1992, and by 1995 accounted for less than 1 percent of Indiana's total imports. In 1999, no waste was received from Northeast Coastal states for the first time since the implementation of facility quarterly reports. Less than 700 tons were received from New Jersey and Virginia in 2000. Figure 15 also shows that, despite a significant drop in the amount of out-of-state

waste received by Indiana facilities from 1992 to 1994, waste imports increased significantly in 1995 and doubled in 1996. Out-of-state waste received by Indiana facilities increased by 32 percent from 1996 to 1998 to their highest level in the last seven years (almost 2.9 million tons). This increasing trend did not continue into 1999, when out-of-state waste received by Indiana facilities decreased. In 2000, out-of-state waste accounted for 12 percent of the waste disposed at all of Indiana's disposal facilities and 17 percent of the waste disposed in MSW landfills.

Figure 15. Annual Waste Imports by Region of Origin

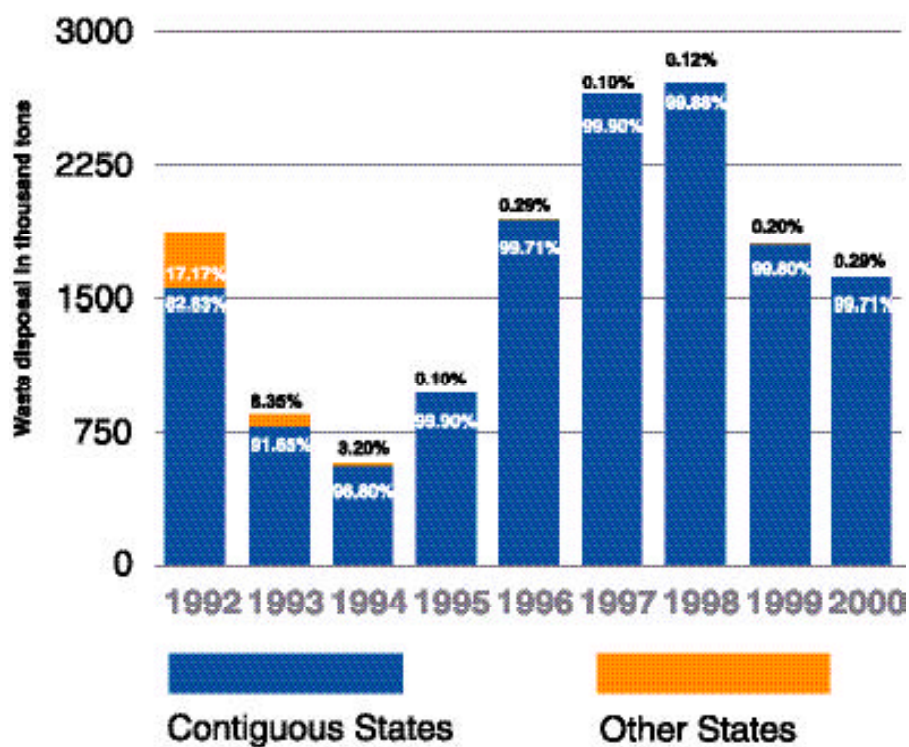


Table 17 details the state origin and amount of out-of-state waste received at Indiana solid waste facilities during 2000. Figure 16 shows this information from 1992 through 2000. Illinois has been historically the largest source of waste

imported to Indiana. In 2000, Illinois waste accounted for 94 percent of the out-of-state waste received by Indiana solid waste facilities. Most of that waste came from the Chicago area (96% of waste received from Illinois).

Table 17.
Out-of-State Waste Received During 2000

Total Tons: 1,611,901					
State County Name	Tons Received	State County Name	Tons Received	State County Name	Tons Received
Illinois	1,515,891	Kentucky	26,658	Missouri	1,769
Champaign	32,772	Daviess	2,647	Jackson	499
Clark	2,339	Grant	16	St. Louis	1,270
Clinton	96	Hardin	174	Wisconsin	968
Coles	2	Henderson	20,128	Milwaukee	700
Cook	1,449,814	Jefferson	3,645	Racine	39
Crawford	13,062	Madison	11	Winnebago	229
Cumberland	2	Meade	32	Tennessee	717
Du Page	4,522	Mercer	5	Davidson	703
Edgar	3,849	Ohio	24,486	Lawrence	14
Effingham	25	Allen	23	Virginia	692
Fayette	263	Ashland	6	UNKNOWN	692
Jasper	46	Auglaize	409	Nevada	231
Lawrence	64	Brown	53	Storey	231
Madison	231	Cuyahoga	3	Texas	91
Marion	167	Darke	6,821	Bexar	91
Richland	22	Franklin	380	California	77
Tazewell	28	Hamilton	497	Los Angeles	77
Vermilion	200	Lucas	6	Georgia	43
Wabash	2,267	Mercer	1,056	Fulton	43
White	37	Montgomery	531	Iowa	12
Will	6,083	Paulding	1,966	Des Moines	12
Michigan	40,256	Preble	362	Kansas	5
Berrien	589	Shelby	165	Doniphan	5
Branch	32,080	Summit	96	New Jersey	5
Calhoun	1	Van Wert	12,020	Essex	5
Cass	3,746	Williams	92		
Genesee	23				
St. Joseph	3,817				

Figure 16.
Annual Waste Imports by State of Origin

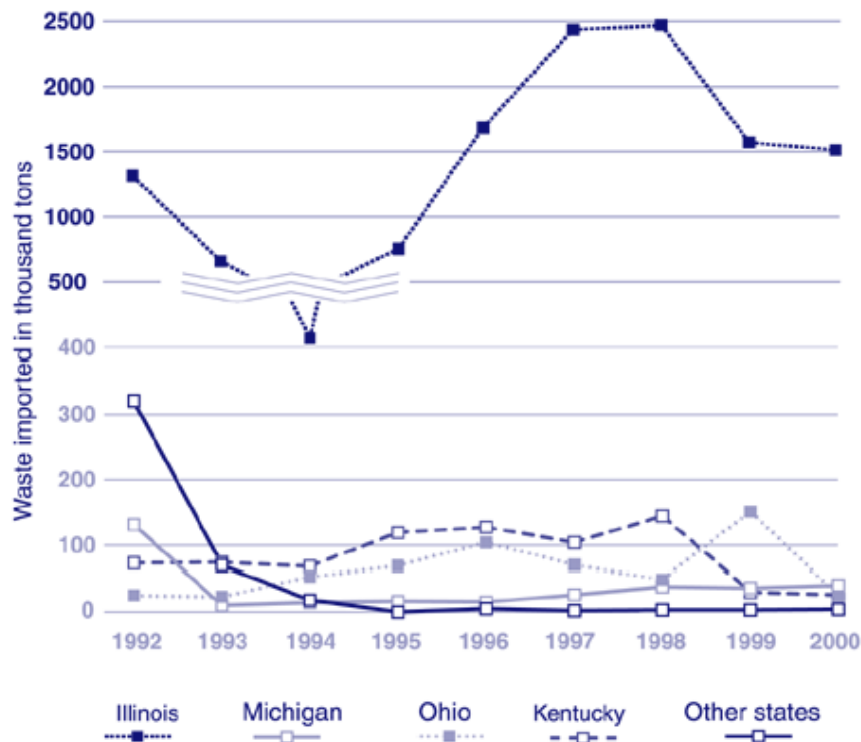


Table 18 displays the amount of out-of-state waste received by Indiana's permitted solid waste facilities by each reported waste type during 2000. Table 19 displays similar information from 1992 through 2000 for municipal and nonmunicipal waste. MSW landfills have consistently received most of the waste imported from other states.

Table 18.
Amount of Out-of-State Waste Received by Solid Waste Facilities by Facility Type and Waste Type During 2000

Waste Type	Tons of Waste Disposed					
	Municipal Solid Waste Landfills	Construction/ Demolition Sites	Non-MSW Landfills	Incinerators ¹	Transfer Stations ¹	All Facilities
Municipal	1,412,547			9,851	17,093	1,439,491
C/D	85,270	1,560			4,407	91,237
Foundry	1,508					1,508
Other Special	62,202		235	1,396		63,833
Coal Ash	27					27
FGD Waste						0
Other NonMSW	15,488				317	15,805
TOTAL	1,577,042	1,560	235	11,247	21,817	1,611,901

¹ No processing facilities other than transfer stations and incinerators operated during 2000.

Figure 17 shows that municipal solid waste historically has accounted for the largest percentage of waste imports. However, nonmunicipal waste imports seemed to increase considerably between 1995 and 1998. This increase may have been due to imports of waste materials to be used as alternative daily cover by landfills. Alternative daily cover amounts were not included as waste in this report for 1999 and 2000.

Figure 17.
Annual Amount of Out-of-State Waste Received by
Solid Waste Facilities

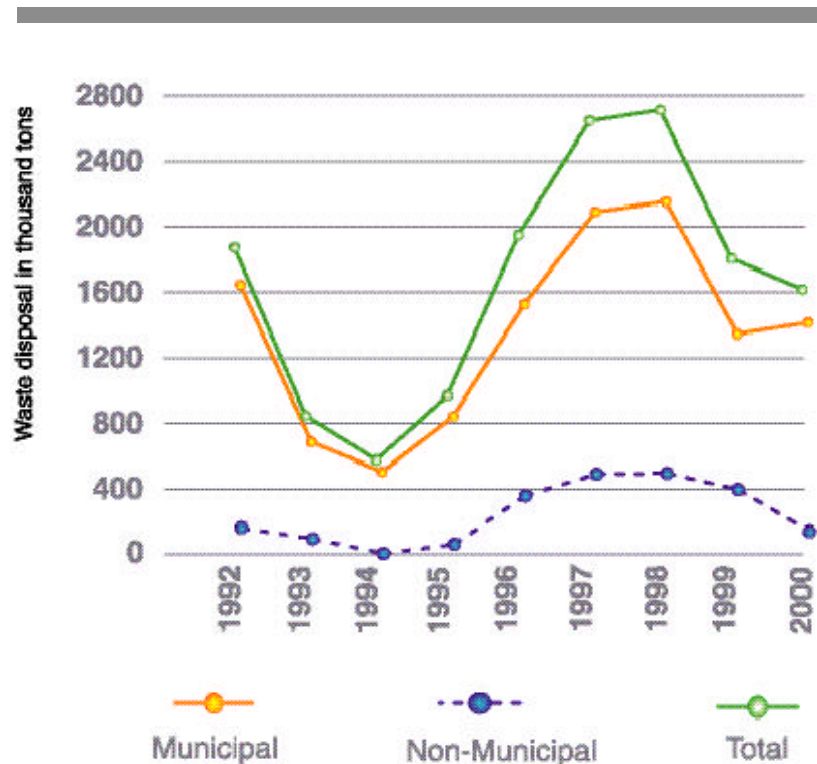


Table 19.

Annual Amount of Out-of-State Waste Received by Solid Waste Facilities by Facility Type and Waste Type

Landfill Type	Waste Type	Tons of Waste Disposed								
		1992	1993	1994	1995	1996	1997	1998	1999	2000
Municipal Solid Waste Landfills⁽¹⁾	MSW	1,649,096	692,849	501,116	841,125	1,521,451	2,100,837	2,153,579	1,336,984	1,412,547
	NonMSW	194,883	128,751	35,034	82,334	311,637	482,421	494,767	381,467	164,495
	TOTAL	1,843,979	821,600	536,150	923,459	1,833,088	2,583,258	2,648,346	1,718,451	1,577,042
Construction/ Demolition Sites	MSW	0	0	0	0	0	0	0	0	0
	NonMSW	0	0	3,297	6,775	77,398	39,468	29,234	23,578	1,560
	TOTAL	0	0	3,297	6,775	77,398	39,468	29,234	23,578	1,560
Nonmunicipal Solid Waste Landfills	MSW	0	0	0	0	0	0	0	0	0
	NonMSW	0	0	0	0	0	0	2,404	21,831	235
	TOTAL	0	0	0	0	0	0	2,404	21,831	235
Incinerators (nonhospital)	MSW	2,488	1,119	2,409	2,560	7,777	5,228	5,488	11,603	9,851
	NonMSW	270	0	0	171	599	855	1,505	1,303	1,396
	TOTAL	2,758	1,119	2,409	2,731	8,376	6,083	6,993	12,906	11,247
Transfer Stations⁽²⁾	MSW	20,087	18,382	27,034	24,359	22,673	10,448	17,988	22,520	17,093
	NonMSW	27	367	640	6,621	604	519	737	683	4,724
	TOTAL	20,114	18,749	27,674	30,980	23,277	10,967	18,725	23,203	21,817
All Facilities	MSW	1,671,671	712,350	530,559	868,044	1,551,901	2,116,513	2,177,055	1,371,107	1,439,491
	NonMSW	195,180	129,118	38,971	95,901	390,238	523,263	528,647	428,862	172,410
	TOTAL	1,866,851	841,468	569,530	963,945	1,942,139	2,639,776	2,705,702	1,799,969	1,611,901

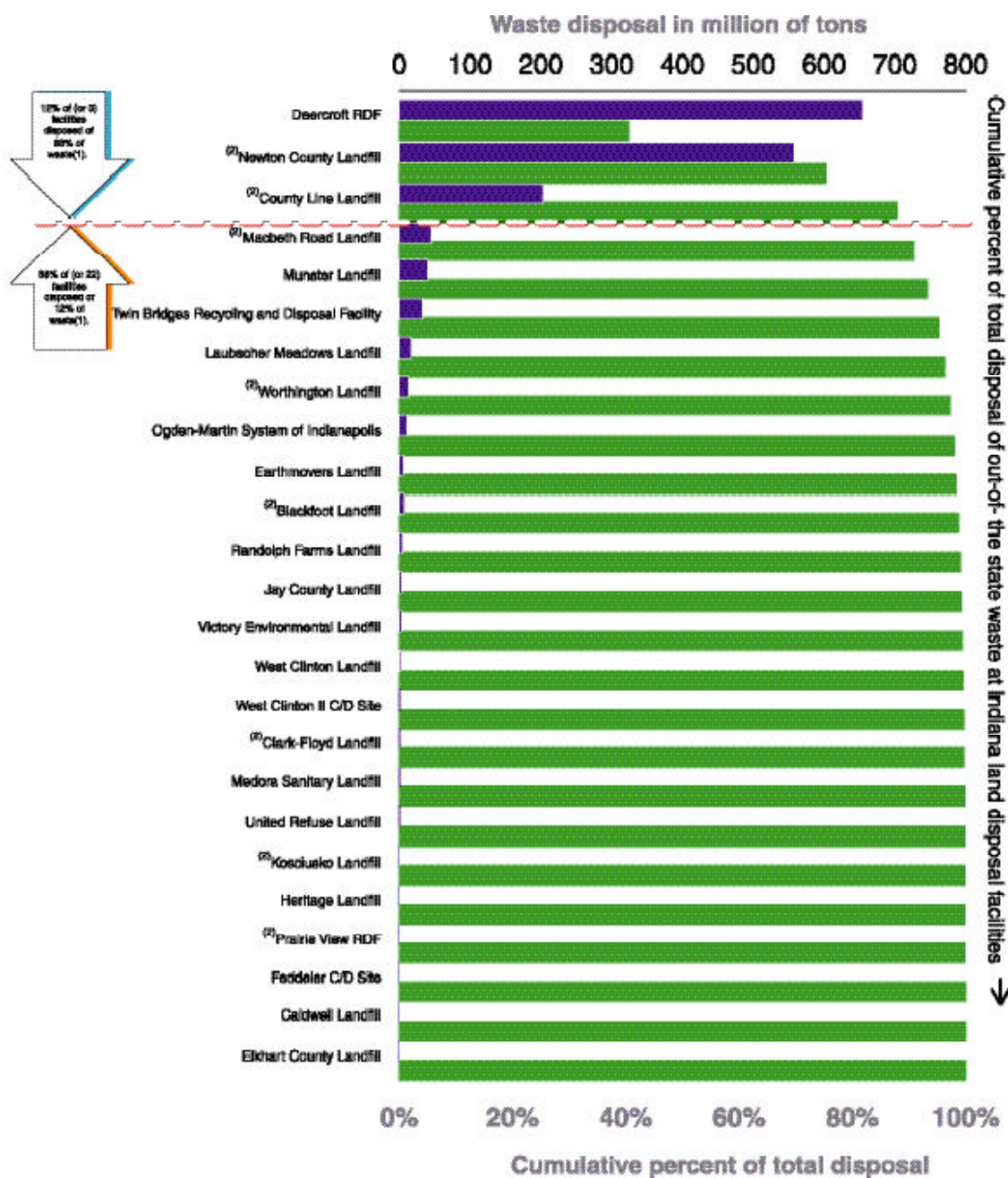
(1) This reflects only out-of-state waste shipped directly to MSW landfills. Most of the out-of-state waste received by transfer stations was sent to Indiana MSW landfills for final disposal. However, these MSW landfills reported the origin of this out-of-state waste as the county in which the transfer station was located, rather than the state in which the waste originated, in accordance with IDEM guidance.

(2) Between 1992 and 1996, the majority of this waste was sent to Indiana final disposal facilities. In 1997, 30% of out-of-state waste received by Indiana facilities was sent to either MI or KY facilities for disposal. In 1998, 45% was sent out-of-state for disposal, mostly to MI or KY. The transfer station exports started decreasing in 1999 and continued through 2000, when 14% (3,099 tons) of out-of-state waste received was sent to other states, mostly KY but also MI and OH.

Figure 18 shows the distribution of the disposal of out-of-state waste among Indiana solid waste facilities. Of the 25 facilities that received out-of-state waste during 2000, three (12%) disposed of 88% of that waste. Almost all the im-

ported waste received by these three facilities was from Illinois. The other 22 facilities (88%) disposed of the remaining 12% of the imported waste.

Figure 18.
Distribution of Disposal of Out-of-State Waste Disposed at Indiana Solid Waste Facilities During 2000



(1) Percentages in the text boxes exclude facilities not taking out-of-state waste. Therefore, they do not correspond exactly with percentages in Figure 10.

(2) This landfill received out-of-state waste from Indiana transfer station(s).

Table 20 summarizes the annual amount of out-of-state waste received by Indiana's solid waste facilities during 2000. Table 21 provides a detailed look at the amount of waste that these facilities received from each state.

Although Indiana imports a considerable amount of solid waste, it also exports waste, primarily to contiguous states.

A brief discussion of waste exports was provided in the previous section on solid waste processing facilities (see page 25).

More detailed summaries of waste imports to landfills, incinerators and transfer stations can be found at the end of this report in the section titled "2000 Solid Waste Facility Profiles".

Table 20.
Total Out-of-State Waste Received by Facility During 2000

County Location of Facility	Facility Name	Type of Facility	Tons of Out-of-State Waste Received
Allen	Macbeth Road Landfill	MSW Landfill	44,905
Allen	United Refuse Landfill	MSW Landfill	466
Clark	Bi-Co Transfer Station	Transfer Station	3,347
De Kalb	Merritt Processing Facility	Transfer Station	245
Elkhart	Earthmovers Landfill	MSW Landfill	6,225
Elkhart	Elkhart County Landfill	MSW Landfill	13
Fulton	County Line Landfill	MSW Landfill	202,435
Greene	Worthington Landfill	MSW Landfill	13,115
Harrison	Gray Disposal Service Transfer Station	Transfer Station	32
Hendricks	Twin Bridges Recycling and Disposal	MSW Landfill	32,768
Jackson	Medora Sanitary Landfill	MSW Landfill	911
Jay	Jay County Landfill	MSW Landfill	3,917
Knox	City of Vincennes Transfer Station	Transfer Station	515
Kosciusko	Kosciusko Landfill	MSW Landfill	114
Lagrange	Scott Recycling & Transfer Station	Transfer Station	357
Lake	Feddeler C/D Site	Construction/Demolition Site	53
Lake	Illiana Transfer #1	Transfer Station	12,401
Lake	Illiana Transfer #2	Transfer Station	25
Lake	Munster Landfill	MSW Landfill	40,423
La Porte	Deercroft Recycling and Disposal Facility	MSW Landfill	654,158
Marion	Ogden-Martin Systems of Indianapolis	Incinerator	11,247
Newton	Newton County Landfill Partnership	MSW Landfill	546,497
Noble	Kendallville Iron & Metal Transfer Station	Transfer Station	338
Pike	Blackfoot Landfill	MSW Landfill	4,631
Pike	Blackfoot Resource Recovery Facility	Transfer Station	317
Porter	Able Disposal Recycling and TS	Transfer Station	355
Putnam	Heritage Landfill	NonMSW Landfill	235
Randolph	Randolph Farms Landfill	MSW Landfill	4,157
Shelby	Caldwell Landfill	MSW Landfill	37
St. Joseph	Prairie View Recycling & Disposal Facility	MSW Landfill	36
Vanderburgh	Laubscher Meadows Landfill	MSW Landfill	17,040
Vanderburgh	Materials Recycling and Transfer Station	Transfer Station	3,054
Vermillion	West Clinton II C/D Site	Construction/Demolition Site	1,507
Vermillion	West Clinton Landfill	MSW Landfill	2,169
Vigo	Victory Environmental Landfill	MSW Landfill	3,025
Wayne	Rumpke Richmond Transfer Station	Transfer Station	831
Total for All Facilities			1,611,901

Table 21.
Out-of-State Waste Received by Indiana Solid Waste Facilities During 2000

County	Facility Name	Facility Type	» » Contiguous States « « » Other « » Total « % of Total					Tons	Tons
			IL	KY	MI	OH	States		
County Name									
Allen	Macbeth Road Landfill	MSW Landfill	0	0	31,650	13,255	0	44,905	2.79%
Allen	United Refuse Landfill	MSW Landfill	0	0	294	172	0	466	0.03%
Clark	Bi-Co Transfer Station	Transfer Station	0	3,347	0	0	0	3,347	0.21%
DeKalb	Merritt Processing Facility	Transfer Station	0	0	0	245	0	245	0.02%
Elkhart	Earthmovers Landfill	MSW Landfill	0	0	6,225	0	0	6,225	0.39%
Elkhart	Elkhart County Landfill	MSW Landfill	0	0	13	0	0	13	0.00%
Fulton	County Line Landfill	MSW Landfill	202,427	0	8	0	0	202,435	12.56%
Greene	Worthington Landfill	MSW Landfill	13,115	0	0	0	0	13,115	0.81%
Harrison	Gray Disposal Service Transfer Station	Transfer Station	0	32	0	0	0	32	0.00%
Hendricks	Twin Bridges Recycling and Disposal Facility	MSW Landfill	32,768	0	0	0	0	32,768	2.03%
Jackson	Medora Sanitary Landfill	MSW Landfill	28	147	0	736	0	911	0.06%
Jay	Jay County Landfill	MSW Landfill	0	0	0	3,917	0	3,917	0.24%
Knox	City of Vincennes Transfer Station	Transfer Station	515	0	0	0	0	515	0.03%
Kosciusko	Kosciusko Landfill	MSW Landfill	5	0	43	66	0	114	0.01%
LaGrange	Scott Recycling & Transfer Station	Transfer Station	0	0	357	0	0	357	0.02%
Lake	Munster Landfill	MSW Landfill	40,423	0	0	0	0	40,423	2.51%
Lake	Feddeler C/D Site	Construction/Demolition	53	0	0	0	0	53	0.00%
Lake	Illiana Transfer #1	Transfer Station	12,401	0	0	0	0	12,401	0.77%
Lake	Illiana Transfer #2	Transfer Station	25	0	0	0	0	25	0.00%
LaPorte	Deercroft Recycling and Disposal Facility	MSW Landfill	652,779	0	1,132	0	247	654,158	40.58%
Marion	Ogden-Martin Systems of Indianapolis	Incinerator	5,797	330	23	756	4341	11,247	0.70%
Newton	Newton County Landfill Partnership	MSW Landfill	546,497	0	0	0	0	546,497	33.90%
Noble	Kendallville Iron & Metal Transfer Station	Transfer Station	0	0	168	170	0	338	0.02%
Pike	Blackfoot Landfill	MSW Landfill	1,942	2,689	0	0	0	4,631	0.29%
Pike	Blackfoot Resource Recovery Facility	Transfer Station	317	0	0	0	0	317	0.02%
Porter	Able Disposal Recycling and Transfer Station	Transfer Station	12	0	343	0	0	355	0.02%
Putnam	Heritage Landfill	Non-MSW Landfill	50	11	0	160	14	235	0.01%
Randolph	Randolph Farms Landfill	MSW Landfill	0	0	0	4,157	0	4,157	0.26%
St. Joseph	Prairie View Recycling and Disposal Facility	MSW Landfill	28	0	0	0	8	36	0.00%
Shelby	Caldwell Landfill	MSW Landfill	0	16	0	21	0	37	0.00%
Vanderburgh	Laubscher Meadows Landfill	MSW Landfill	0	17,040	0	0	0	17,040	1.06%
Vanderburgh	Materials Recycling and Transfer Station	Transfer Station	8	3,046	0	0	0	3,054	0.19%
Vermillion	West Clinton II C/D Site	Construction/Demolition	1,507	0	0	0	0	1,507	0.09%
Vermillion	West Clinton Landfill	MSW Landfill	2,169	0	0	0	0	2,169	0.13%
Vigo	Victory Environmental Landfill	MSW Landfill	3,025	0	0	0	0	3,025	0.19%
Wayne	Rumpke Richmond Transfer Station	Transfer Station	0	0	0	831	0	831	0.05%
Total for All Facilities			1,515,891	26,658	40,256	24,486	4,610	1,611,901	

Figure 19.
Origin of Waste Disposed and Incinerated in Indiana During 2000

